

EXHIBIT F

7 Steel Samurai: A Proposal for a Joint Venture

When a battle is lost, more often than not it is the battle plan that is to blame for the defeat. Sound strategic planning – be it in warfare, or in a business transaction – is essential if one expects to leave the field of battle, or place of commerce, intact.

Then again, sometimes even solid foresight and a clear-eyed strategy are not enough to carry the day. Sometimes, you must go well beyond conventional thinking, and find a new way to win.

That is what this document will address: setting out a bold new plan that will finally allow the steel sheet piling segment of the construction industry to become fully functional, without interference or disinformation from on high, so that its players can, once and for all, operate in a coherent, sensible, cost-efficient manner. [Note: As “steel sheet piling” is really a misnomer, the simpler terms “steel retaining walls” or “steel wall systems” will be utilized hereafter.]

In the following pages, a plan will be put forward to form a joint venture between two well-established companies in the steel retaining wall industry, the outcome of which will be to level the global playing field and make future steel retaining wall projects integrated models of performance and functionality. At the same time, it will also be necessary to outline the threat posed to the industry if the *status quo* is allowed to perpetuate itself indefinitely, given that a whole engineering mythos has been allowed to spring up unchecked in Europe, and is now in danger of spreading to the far reaches of the globe.



Compartmentalization in the deep foundation construction field too often isolates each of the individual players. This isolationism plays to the favor of the big guns at the top – a steel production giant, let's say – as it shoves all the various contractors, engineers, designers, marketers, suppliers, manufacturers, mill owners, etc., into tight little niches in which each of these lone players – on every steel retaining wall construction project, from beginning to end – are counted on to perform only their own necessary tasks, and are never challenged to stray outside those particular areas of expertise.

In this manner of operation, the greater good of the steel retaining wall project can too easily get lost in the shuffle. Moreover, it is to this particular steel production giant's advantage that such an imperfect infrastructure prevails, as that company is then better able to dictate industry standards and manipulate the playing fields of each project that comes along, thereby pushing and forcing *their* preferred products – whether those

products be totally suitable for the job in question or not – on to this makeshift, temporary cast of players.

All of these individual performers are disadvantaged precisely because each is doing his or her own particular job. While at first glance the idea of just doing one's job doesn't sound too disastrous an approach, it does tend to result in that player becoming too closely focused on his or her own small corner of the microcosm, rather than instead being able to step back, as part of a unified team, and take in the big picture – the project as a whole.



Seven Samurai is a classic film wherein the concept of taking a strategic disadvantage and, by carefully implementing an audacious but integrated structure of teamwork, turning it to one's favor is masterfully told with great skill by the legendary filmmaker Akira Kurosawa.

In the feudal period of Japanese history, a rural village is held under the heavy thumb of a roving gang of bandits. The villagers do not have the means, the aptitude, nor, most of all, the stomachs for confronting the bandits. "Land tax, forced labor, war, drought... and now bandits!" one of the women laments. Year after year, they find themselves at the mercy of these ruthless thugs, as their barley and rice crops are ransacked – because there's nothing they can do about it.

Until they finally realize that there *is* something they can do about it – when one lone young man bravely stands up and says, "Enough is enough. Let's fight back!"

The other men try to put the brash upstart in his place: "The peasant's only choice is to endure," one of the downtrodden tells him. "We can't defy the powerful. When the bandits arrive, we'll greet them meekly and quietly hand over all our barley. We'll plead with them to leave us just enough for us to survive." But, the young man remains steadfast in his fight-back stance.

To settle the matter, they all march up to the mill, to confer with the village elder who resides there, in solitude – the "Old Man," they respectfully call him. And, the Old Man tells them that the young upstart is right: they *must* fight back, once and for all. But, how can they fight bandits, they implore; they are simple farmers, not brazen fighters!

Go out and find samurai, the Old Man calmly instructs them. His suggestion is met with shocked disbelief: samurai are too *proud* to stoop to such a lowly task – they'd never be persuaded! The Old Man smiles: "Find *hungry* samurai..."

So, thus anticipating the next raid on their little valley, the boldest of them set out, to the nearest town, to seek and recruit help. They plan on hiring these improbably starving samurai using only the promise of food and shelter as payment. Their plan is highly unconventional, given that samurai, in feudal Japan, did not hire themselves out in the service of common folk. They fought for warlords, not mere peasants.

But these commoners must take an uncommon approach, because they've already taken enough abuse, from their adversaries; and they see themselves as having been painted into a deadly corner. The bandits know they can take from that particular village because they already take the villagers for granted – so much so, they even bypass it, at the start of the story, since they're confidently assured that its fields will be even more alluring, for their reaping, later in the season. So, the bandits ride on.

But this time, the bandits are mistaken. For this time, upon their return, the bandits will be met with force and cunning and guile – and defeat.

An unconventional approach is only at odds with the norm until it's successfully repeated enough times to the point that it, too, becomes the norm. The first samurai whom the villagers are able to miraculously convince to come on board is clearly the most important to their future. Without that initial recruit, their crazy scheme will always seem crazy – even to them!

It's a given that they'll need more than just one blade-for-hire. But, as there are 40 bandits, the odds of success are still heavily stacked against them. As it turns out, their first recruit, Kambei, becomes their foremost recruiter himself.

Kambei, the leader of the other six samurai, tells his men: "By protecting others, you save yourself." One of the things we learn from *Seven Samurai* is that, when an oppressed silent majority bands together with a few hungry warriors, anything is possible; and the tired resignation of inevitable defeat is replaced by an uplifted reality that comes from looking at the world in a brand new light.



Welcome to the hungry samurai of the steel retaining wall industry!

We'll call them SWS (for "Steel Wall Systems, Global"). What these SWS samurai are going to propose is simple: it's time to fight back against a seemingly invincible foe, time to stop playing the game by that enemy's rules – in fact, it's high time for a brand new game altogether, with simple new rules that make real sense.

Today, a big steel company in Europe is trying to run roughshod over contractors and developers the world over, much like they've been doing in Europe for far too long.

ArcelorMittal wants all these industry professionals to believe a fallacy, a falsehood, that they have worked long and hard to promulgate, first in Europe, and now worldwide. They want these contractors and developers to buy into their myth that their Larssen interlocks and Z sheet piles have become the be-all, end-all solution for almost every conceivable deep-foundation project – ports, dams, bridges, foundations, etc. – that the contractors and developers will ever undertake.

Arcelor has had some help in their myth-making endeavor – but, more on that later.

As for the on-going battle at hand, Arcelor will soon meet its match. In the same way that seven hungry samurai and some downtrodden villagers organized themselves, game-planned, fought back and won, SWS will now march onto the global field of play, lay down its gauntlet, and show Arcelor, and everybody else, that there *is* another way to build solid and sound steel foundation walls.

The goal of SWS is to establish franchises in global markets via local pipe plants whereby 75% of the steel wall system is sourced locally and the balance is provided by SWS. O-piles are steel pipe piles with welded connectors that form a continuous steel wall. Recently, there has been a huge increase in the use of O-piles on construction projects around the world, particularly with ports, retaining walls, and deep foundations, as well as on a variety of other large- and small-scale projects.

The reason is simple: O-piles offer a stronger, more cost-effective alternative to both traditional concrete barrier walls and U- or Z-shaped retaining wall sections. In fact, O-piles connected together with patented connectors form extremely effective and strong retaining walls, for projects such as port construction. They can also effectively transfer loads from structures such as parking garages (or any similar-scale construction project) to stronger soil layers deeper underground.

There are only two countries in the world where steel retaining wall sections are manufactured, whereas pipe factories are abundant worldwide. Therefore, since O-piles will almost always be locally produced, the construction project avoids the arbitrary expense of costly importation fees. Either new or used steel pipes are abundant, cheap and easy to manufacture, so they offer a much more cost-effective solution for large-scale construction projects.

But that's only one facet of what SWS has to offer. As stated, the bold new SWS way of doing things is a local approach, that doesn't require the approval of the big and mighty steel giant. This new way is a keep-things-simple strategy, that does not wander off and get mired down in the muddy waters of murky falsehoods and misconceptions – those traps of disinformation that have been set out in the past to bog projects down in misguidance and confusion.

Instead, the new way of SWS will open up the playing fields and re-focus all eyes on what should always be the primary task at hand: building strong steel retaining walls,

more cost-effectively, with less confusion and greater independence; not just for one project here and now, but on all future steel wall construction projects, all over the world.

Specifically, SWS will provide the following: expertise in the industry, with its battle-tested team of samurai professionals; engineering design and support (via the Steel Piling Network; more on this new resource shortly); welding equipment, with both lines and rods (via a major partner's established relationship); Z-piles (and corner connectors); pipe sheet pile connectors; anchors; sealant equipment and product; and driving equipment planning.

By that same token, the seven-samurai approach will also be replicated in the structural hierarchy of the SWS team. In *Seven Samurai*, each of the seven fighters has a specific proficiency. Kambei is their natural leader. His wisdom is clear:

"Such selfishness will not be tolerated. You're all in one boat."

"He who thinks only about himself will destroy himself, too."

"In war, it's teamwork that counts."

Then there is the sullen Kyuzo, whose swordsmanship is impeccable. When it comes to a bow and arrow, Kyuzo's talent level is matched by the archer Gorobei. For the more practical, administrative-type duties, Shichiroji is the man to see. When it comes to keeping up his comrades' morale, Heihachi knows when a laugh is needed. Young Katsushiro, the apprentice, reminds them all of the flame that once burned within their hearts. And the would-be warrior Kikuchiyo, when not blind drunk, forges the crucial connection with the peasants, as he was once one himself.

Thus, they are a team, and their only redundancy is the swords they all carry. So it will be with the SWS cast of players, in that each will have a specialty but all will be working together, for a common goal; and not just on one retaining wall project, but on each and every project that comes along. The inherent dangers of compartmentalization, earlier discussed, will therefore be eliminated, with such a structure driven firmly in place, as the big picture of what's at stake, for each and all, is always kept front and center, in clear and determined focus.



SWS will be backed by proven, well-established industry professionals – its own band of hungry samurai. At the forefront will stand Rob Wendt, who, for the better part of the past decade, has helped make PilePro an international success story.

As is so often the case in a business, it's not the guy who sells the big-ticket item who becomes an expert in the field but, rather, the other guy, who sells the key ingredients that make that item work best, who comes to know the industry inside and out. So it has been with the President of PilePro, Rob Wendt, the former Executive Director of NASSPA (back when that organization had a spine – but more on them later).

Since the introduction of its first corner connector in 1997, PilePro has grown to become a leading supplier of this product to the deep foundation construction market. PilePro has a broad product line of proven, patented products. These corners and connectors have grown from a niche market into an essential necessity for any steel retaining wall project. Through Rob Wendt's complete dedication to this product line and his tenacity in advocating its uses, so that contractors worldwide can build better steel wall solutions, PilePro connectors have effectively rendered fabricating corners and other connection processes a relic of the past for steel retaining wall construction projects.

The growth of PilePro during the past decade not only fulfilled its initial promise upon breaking out onto a global stage but also surpassed even conservative expectations. After facilitating a buyout of the company's German founder and shifting the company's focus westward across the Atlantic, Wendt organized an offering to investors in 2003 that foresaw a return of 120% of principal within five years, plus a monthly interest payment of 1% based on the outstanding amount. In fact, those goals were met and exceeded. The company's cost structure allowed it to dramatically increase sales while preserving its 30-35% gross margins. From 2003 to 2008, PilePro went from a revenue total of \$4 million to \$18 million USD, with EBITDA growing from \$750,000 to \$7 million USD in that same time period.

Throughout its ascent to the top of its market, PilePro has led the way in the conversion from the old-fashioned fabricated corner process to modular corners. As the company initially made its aggressive expansion out of the European market into the United States and beyond, PilePro entered those markets well-armed with hundreds of patent rights, which enabled the company to effectively escalate its presence in the industry around the globe. Today, PilePro is the world's only full-line manufacturer of connectors for the steel retaining wall industry.

The growth opportunity PilePro targeted over the better part of the past 10 years has been the European weld-on connector market. Weld-on connectors are used in combi-systems (i.e., to connect Z-piles to beams and pipes or pipes to pipes). Since weld-on projects tend to be extensive infrastructure projects that involve large amounts of connectors, it was considered a rapidly growing segment of the foundation products business.

Penetrating this market brought PilePro into direct competition with Arcelor and its bundled combi-wall product line (i.e., Arcelor pipes, beams, and retaining wall sections that are sold together with Arcelor connectors). PilePro successfully marketed itself to the European weld-on market and achieved significant sales traction based on the superior performance of its products relative to the Arcelor connectors. PilePro's

products have also allowed other steel retaining wall manufacturers to offer combi-wall systems to compete with the Arcelor combi-system. For all these reasons and more, PilePro welcomes another opportunity to again take on Arcelor – only this time, with far greater stakes.

Now, characterized by the same bold, visionary approach that first led PilePro out of Europe, Rob Wendt wants to take PilePro and make it one of the founding cornerstones of SWS. From the outset, there will thus be a battle-tested market warrior in place. Joining PilePro will be Gerdau Ameristeel.

Being the largest producer of steel retaining wall sections in North America, Gerdau is perfectly positioned for a major alliance with SWS. Their ball and socket system is superior to all other methods of steel retaining walls. Not only that, but Gerdau is also the low-cost producer for hot rolled steel retaining wall sections in the Western Hemisphere, with the lowest scrap conversion rate in the industry today (estimated at less than 100 USD per US ton of steel retaining walls). As part of the SWS joint venture, Gerdau will supply SWS with Z-piles at \$200 USD over cost (scrap IDEX + conversion rate), and PilePro will supply SWS with its patented connectors. Gerdau will also supply welding equipment (both lines and rods) via its relationship with ESAB.

By forming strategic arrangements with various markets via local pipe plants around the world, SWS, with the strong backing of Gerdau and their ball and socket Z sheet pile, will build a new global platform franchise from which an industry-wide revolution can begin. The days of turning to Europe for guidance and instruction on how to build steel retaining walls will be over. The era of being manipulated and misinformed regarding the best way to construct those walls will finally come to an end.

Thus, contractors worldwide will finally achieve the following:

- They will gain the favorable option of keeping their projects as local as possible, by utilizing an already established network of mills whereby up to 25% of the sheet piling solution will be imported by SWS and the balance produced locally;
- They will have their hands untied, as they are set free to use the superior ball and socket connection system, and will no longer be forced to use the Larssen interlocks that Arcelor favors – and manipulates the Eurocodes to favor, in turn – as if no better alternative was available (more on that coming);
- Having achieved this freedom, contractors will thus be liberated with an array of choices and combinations to choose from, that can be obtained with the existing ball and socket Z and combined sheet piling options incorporating PilePro connectors;
- As SWS will be comprised of an alliance with Gerdau, contractors using ball-and- socket systems for their wall profiles will greatly benefit from Gerdau already having the only plant in the world that cost-effectively manufactures

the durable PZC/ball-and-socket system, as opposed to the more disposable AZ/Larssen;

- Contractors will also achieve greater cost-effectiveness through a welcome reliance on a ready-to-ship, lower-cost inventory of steel retaining wall sections and connectors, that will be strategically stockpiled around the globe;
- They may also take advantage of a revolutionary online resource, to aid and simplify the design/planning process, at the Steel Piling Network (SPN) website (www.steelpilingnetwork.com), a free portal through which job site calculations can be quickly rendered, steel retaining wall systems compared, products purchased, and deliveries arranged, all through SPN;
- Finally, franchisee's will be able to confidently rely upon SWS's well-integrated, emboldened samurai team of proven technical marketing staff marketers, including tech-savvy engineers, and steel industry professionals, all of whom will bring to the table their decades of experience, tons of practical know-how, and the mountain of determination it will take to transform this industry for the better, from the ground up.

It can be done, all of it, right now.

SWS will foster a new type of symbiotic relationship between the steel producer and the marketplace; and this alliance, that is at the heart of SWS, will be locked into place as a continuous force – a force to be reckoned with – not just for one steel deal but for any and all transactions going forward, for decades to come.

One of the most attractive features of SWS as an investment opportunity is that there's only a relatively low buy-in cost at the outset. This is made possible because the investor is assured of achieving greater profit-sharing on the back-end.

The sooner that SWS becomes a reality, the better. Increasingly, Arcelor is looking to go global with its propagandistic style of heavy-handed tactics. The dangers that lurk in leaving Arcelor unmatched and unchecked can be found in a few examples of just how far they will go to get their point across.



There has been a recent concerted effort in Europe to blatantly shift the perception of the reliability of U-piles. This carefully orchestrated offensive has tried to paint the U-pile as somehow having overnight become inferior to Z-piles. Evidence of this smear campaign can be found in "objective" articles written for publications, or from conference papers, as well as in the very language of the Eurocodes that are trying to standardize the steel retaining wall industry.

What's behind this dramatic U-turn on U-piles? Could it be that Arcelor is making a deliberate attempt to muddy the waters so as to better position the Z-pile that it favors and prefers in manufacturing?

Let's step back a moment and try to figure out what's really at stake here. First of all, just what exactly *are* the Eurocodes, and why do a few powerful people want to exalt them as being some kind of shining model of standardization?

In a seemingly objective *Port Technology International* article (Winter 2009, Issue 44: "Steel Sheet Piling – Recent Developments and Codes of Practice"), Alec Courts, a geotechnical engineer, offers the Eurocodes as "a suite of standards which are being adopted across Europe and will replace many national standards currently used for the design and construction of sheet pile walls. The Eurocodes consist of standards covering the basic materials used in construction and the design methods to be adopted, and are accompanied by a number of execution codes which detail how the construction should be undertaken."

Courts goes on to make the argument that there "have been significant improvements made in the efficiency of sheet pile sections, particularly with the development of the wider Z profile piles such as the ArcelorMittal 700 series of AZ piles." (It's curious that no other steel company is singled out by Courts.) He further states:

"The differences between ... pile profiles are more clearly defined within the Eurocodes, with U profile piles being affected significantly more in unfavorable conditions than Z profile sections. This will probably lead to a decline over time in markets where U sections have dominated ... as the benefits of utilizing Z profile piles are demonstrated. The principle reasons for the variance between U and Z shaped piles being adopted in wall designs are due to the fact that U section piles are connected together along the center line of the pile wall. As the piles resist actions upon the wall, there is a greater potential for movement within the pile clutches of U section piles, which negatively affects the flexural strength of the piles. This potential is accommodated for within the Eurocodes through the introduction of two partial factors, which act as reduction factors on the capacity of U section piles within a design."

Having thus denigrated the U section pile, Alec Courts concludes that "there are design advantages for adopting Z profile piles as well as sound commercial reasons." He then hammers the point home even harder, by stating that the "design and commercial benefits of wider Z section piles is more easily demonstrated using the design process outlined within the Eurocodes and will lead to increased use over U section piles over the next few years."

If one didn't know better, one might conclude that Alec Courts was indeed in the employ of Arcelor itself, since he strives so ardently to make their case for them. Unfortunately, he's not the only example of Arcelor's disinformation campaign.



When it comes to the drafting of the Eurocodes, in the sections that address steel retaining wall systems, Arcelor has blatantly stacked the deck in its favor. In a manner that is all too similar to how Washington D.C. "works," Arcelor has craftily utilized a revolving-door policy wherein former Arcelor employees have been hired by the Standards Committee of the European Committee for Standardization (CEN) to draft and revise the very sections of the Eurocodes that address Arcelor's greatest concerns.

In effect, Arcelor has written the Eurocodes to favor its AZ/Larssen interlocks and Z-piles, cooking the books, as it were, in order to slant construction procedures throughout Europe for no better reason than that Arcelor wills it to be so!

For construction standards, Europe may just as well see itself as a throwback to Ancient Egypt, where the Pharaoh's edict of "Let it be written, let it be so" was the only production code by which the Pharaoh's fearful architects and engineers had to go by – the Egyptcodes, if you will! Only now, instead of a dictator, European steel construction is being literally ruled, and ruled in, by a company that sets itself above the industry and – in their minds, at least – beyond reproach.

Emile Reuter was the Commercial Director of Arcelor RPS. Roger Schlim was the Managing Director of Arcelor RPS. In 2005, while still employed by Arcelor, they co-wrote the Eighth Edition of the *Piling Handbook*, the first edition of that handbook to be published by, you guessed it, Arcelor. But, Reuter & Schlim were also hired by the CEN to write that section of the Eurocodes that deals with steel retaining systems. It's like robbing Peter to pay Paul, to scratch Peter's back, so that Peter can bend over backwards in order to better kiss Arcelor's AZ interlocks!

As Reuter & Schlim state in their Foreword to that 2005 *Piling Handbook*: "Arcelor recognizes the high importance of technical support for its products." [Read: Arcelor is writing this handbook as a tool through which we can shove our favored products down your throats; and when you object to this forced feeding, we will have a chapter and verse ready-made to direct you to – it's in the *Piling Handbook*, after all!] "The new *Piling Handbook* is intended to assist less experienced engineers in their daily work and act as an 'aide memoire' for the more experienced engineer."

What experienced engineer worth his salt needs to reference a reference book that's riddled with misinformation? Who needs a "memory aid" along *those* lines? Arcelor doesn't want contractors and engineers to build better walls: they'd prefer it that a

lesser wall be built with the stuff they produce and sell the most of, so that's it to *their* benefit, not the wall-builders.

That is a willfully dishonest promulgation of bad construction essentials and practices.

Reuter & Schlim go on to state: "Arcelor's mission is to develop excellent working partnerships with its customers in order to consolidate its leadership in sheet piling technology, and remain the preferred supplier in the marketplace." What they fail to mention is that they plan on consolidating their long-planned stranglehold by misinforming that very marketplace, with which they, of course, intend to supply solely with their "preferred" products, whether it makes good sense or not.

The outrage is: now Arcelor wants its stacked deck of AZ/Larssen-loving standards, that have taken Europe by storm trooping, to rule the entire construction world of steel retaining wall systems, from Tokyo to Rio. After being allowed to run roughshod and, thereby, successfully constrain construction projects in Europe, Arcelor wants to now take its bully pulpit to a global stage, on which it will continue to spread such false feats of engineering "logic" that favor AZ/Larssen and Z sheet piles over superior approaches simply because it's in their long-term best interest to do so.

At best, that's just outright bad construction logic. But, at its worst, it's both incredibly irresponsible and ethically bankrupt of Arcelor to spread this big lie of false propaganda, Soviet-style, onto a perhaps unwitting public. After all, if a big, outrageous lie is told often enough – and even gets written down into the official codes, and gets dictated into so-called handbooks – even people who are smart enough to know better may begin to accept Arcelor's twisted logic as gospel.



There's more. Beyond the subversion of the Eurocodes, there's also a 50-page document called "Technical Session on Hot-Rolled Steel Sheet Piling Applications" that was hatched from the *Proceedings of the North American Steel Sheet Piling Association's Steel Sheet Piling Symposium*, held in Kansas City, Missouri, in 2009, in conjunction with the Deep Foundation Institute's 34th Annual Conference on Deep Foundations. In that document, the last article – they saved the worst for last – has the seemingly straightforward title of "Sheet Piling Current Design Practices."

The author of this supposedly objective assessment is one Michael J. Garlich of Collins Engineers in Chicago. Right up front, in his introduction, Michael Garlich bemoans the fact that, "unlike structural steel and reinforced concrete, no national design codes cover steel sheet piling design. Recently, NASSPA undertook a study to examine common practices and design standards used for steel sheet piling in North America *as well as Europe* [italics added, for a very good reason]."

Now, if you were to think, after reading such stuff, that you're about to be hit over the head with a blunt instrument that argues for the implementation of national design codes in the United States – say, something along the lines of the Eurocodes that cover steel retaining walls? – you'd be right. And, what's more, you'd be wise to reach for your hardhat because, when Arcelor pays off someone to ghostwrite its propaganda pieces, they want 'em to hit you over the head with the stuff pretty hard, like they've been doing all these years in Europe.

And precisely *what* motivated NASSPA to undertake such a study? Michael Garlich fails to mention just what exactly the impetus was for some honcho at NASSPA to call him up out of the blue, and probably say something like the following:

"Ya know what we need to have on hand, Mike, for that DFI conference they're gonna hold out in Kansas City?... We need us a spiffy little article that tells 'em how we, in the steel retaining wall industry here in America, need something like the Eurocodes!... Because, after all, Mike: steel retaining wall construction standards in Europe have been so vastly improved since the EU started hiring former steel company bigwigs to write the regulations for 'em, right, boy?... Yeah, okay, sure: maybe U-piles were the best thing going for 100 years. But, hey, if some ex-director of Arcelor can make a reasonably good enough case now for Z-piles replacing U-piles as the go-to pile for deep foundation projects, who's to say his motivation is compromised, just because Arcelor favors the Z-pile and he's still on their payroll?"

And, well, Mike, let me just ask you: what's wrong with that same European standard now taking hold worldwide, and having those reasonably good enough Z-piles become the preferred pile everywhere else on earth?! Why not? If it's good enough for the Central Secretariat in Brussels, then it should be good enough for us, am I right?... Churn out just such an article for those DFI guys in Kansas City, Mike. And if anybody tells ya it reads like it could've been hand-written by somebody across the pond at, say, Arcelor, you just tell 'em to take exit Drop Dead on their way home!"

Now, according to NASSPA itself, as a body it provides "a forum where the users of steel retaining wall technology can interact and discuss best practices." Well, if that's so, then the question must also be asked: "best practices" for whom exactly?... The American contractor, on an American project, for instance? Or, that same project's cost-conscious American developer? Or, is it maybe more likely: the best practices for Arcelor, and its global scheme that results in compromising the integrity of deep foundation construction projects in order to sell more of its preferred products worldwide?

Garlich states in his first sentence: "Steel sheet piling has a long history of successful use in a wide variety of both permanent and temporary structures." Every word of that

statement is true. What he fails to include in that nifty summation, however, is this one very significant fact: the success of steel retaining walls used in deep foundation projects over the past 100 years is based almost completely on the U-pile – the very same U-pile that the Eurocodes now denigrate, thanks to Arcelor. Where is the sense in this?

Garlich actually undermines his very argument for standardization by citing the numerous bodies and their publications already in place and readily relied upon by contractors, designers and engineers, such as: the American Society for Testing and Materials (ASTM) Standards; the International Building Code (IBC); the American Society of Civil Engineers Standard “Minimum Design Loads for Buildings and Other Structures” (ASCE 7); the American Association of Highway Transportation Officials (AASHTO) “Standard Specifications for Highway Bridges”; the American Railway Engineering and Maintenance-of-Way Association (AREMA) Manual for Railway Engineering; the Recommendations of the Committee for Waterfront Structures Harbors and Waterways, EAU 2004; the American Institute of Steel Construction (AISC) Steel Construction Manual; the Federal Highway Administration (FHWA) Ground Anchors and Anchor Systems; the U.S. Army Corps of Engineers (USACE) Design of Sheet Pile Walls; and even the NASSPA Best Practices Sheet Piling Installation Guide.

Garlich states that all the above serve only as “references, as opposed to accepted codes. This provides the designer considerable latitude, which may or may not be in the best interest of the project.” Well, if that “considerable latitude” that the designer is being granted may *indeed* “be in the best interest of the project,” then that designer has a distinct advantage over his fellow professional in Europe, in that he is not burdened with so-called “accepted codes” which, in some cases, run counter-intuitive to what’s really needed on specific job sites under real-world conditions.

Granted, the above alphabet soup of guides, specifications, practices, etc., may be a bit intimidating and imposing, even overwhelming. Fortunately, however, there now exists the SPN website (as previously mentioned), where many of the questions of calculations and specifications that arise in planning the design of retaining wall systems may be answered via the free online tools available at SPN (as well as the means to order products and arrange for deliveries directly to the job site).



Arcelor would have the world believe that U-piles have a problem. But it’s simply not the case – and they know it. Still, with their current mindset being what it is, there can be little doubt as to what major steel market Arcelor has square in its sights: Asia.

Asian retaining wall manufacturers only produce hot rolled sections with U shapes. Thus, by Arcelor pushing its Z-shaped wall sections, they are looking to drive forward the perception that retaining walls built with Z-piles are better than those built with U-

piles. By attempting to spread this fallacy – first, via the stilted drafting of the Eurocodes; second, through carefully placed pieces of ghost-written propaganda, in technical journals, papers, handbooks, and the like – Arcelor is hoping to set the stage for the eventual eradication of U-piles.

For years now, Arcelor has been attempting to hijack this corner of the construction industry; and so far, they've been having a pretty easy go of it. They're like a lone hijacker who's arrived at the airport, checked his bags, waltzed right through security, boarded the plane, and is now about to charge the cockpit at 40,000 feet, ready to take over and tell everybody how it's going to be, from here on.

But, the SWS samurai will soon spring into action and foil Arcelor's takeover attempt!

The advent of SWS, at this critical turning point in the history of the steel retaining wall industry, is clearly a timely venture, given the magnitude of what Arcelor has been seeking to undertake. Still, time is of the essence.

"Land tax, forced labor, war, drought... and now bandits!" Same as it ever was: with the world being what it is today, this is clearly no time to sit back and wait for things to get better. There isn't a moment to lose. SWS has a battle plan to take action now and, thus, start changing the way things get done – for the better, and for good.

With the full-fledged backing of Gerdau and PilePro, SWS can quickly establish itself as one of the dominant steel companies in the world. The SWS samurai will slice through the antiquated methods that companies like Arcelor have long sought to establish; instead, SWS will brandish new swords that can speak louder than codes, as a revolution is led and the old walls come tumbling down.

The coming structures that will then replace those former foundations will have the entire construction world talking about how they were built, as SWS leads the way forward, into the future and beyond.